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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,584	05/23/2006	Hideo Tashiro	2870-0319PUS1	6678

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

LAM, ANN Y

ART UNIT	PAPER NUMBER
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1641

NOTIFICATION DATE	DELIVERY MODE
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11/28/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/560,584

Applicant(s)

TASHIRO ET AL.

Examiner

Ann Y. Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-31 is/are pending in the application.
- 4a) Of the above claim(s) 19-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4-9,12-18 and 31 is/are allowed.
- 6) ☒ Claim(s) 3,10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Agrawal et al., 7,195,872.

As to claims 3, 10 and 11, Applicants claim a substrate comprising one or more spots for immobilizing a biomolecule in which said spot protrudes from the surface of the substrate and has a flat surface for spotting on the top thereof, and the surface of the substrate around the protruding spot part, the lateral surface of the protruding spot part and the flat surface for spotting are comprised of an electrically conductive substance.

Agrawal et al. teach a substrate having a textured surface to increase the surface area, wherein the textured surface comprises pillars (20 in fig. 1B and 20' in fig. 2B) to which biomolecules such as DNA bind (col. 22, lines 64-67). In none of the claims 3, 10 nor 11, is the immobilized biomolecule recited as being part of the claimed invention, and thus the embodiment in figure 8 of Agrawal et al. disclosing flat protruding surfaces

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(801) that are separated from each other and are capable of having biomolecules be immobilized thereon also disclose the claimed invention. Moreover, Agrawal et al. disclose that the substrate has a layer of conductive material such as gold (col. 33, lines 45-55 and 65-67). Also, as to the newly added limitation "said flat surface for spotting being surrounded by a lateral surface inclined at an angle θ to said flat surface for spotting", the pillars disclosed by Agrawal et al. are inclined at an angle, because a 90 degree angle with the flat surface is also an angle.

Allowable Subject Matter

Claims 1, 4-9, 12-18 and 31 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not suggest or disclose a substrate with a protruding flat surface in which the flat surface, the surface around the protruding part and the lateral surface of the protruding part are comprised of an electrically conductive substance, and in which the surface of the substrate around the protruding spot part forms a V-shape bottom, or wherein the flat surface has a roughened surface.

It is also noted that withdrawn method claims 19-22 depend on the allowable device claims. However, method claims 23-30 do not depend on the allowable device claims and thus the restriction between the device and methods claims is not yet withdrawn.

Response to Arguments

Applicant's arguments filed September 7, 2007 have been fully considered. Applicant's amendment regarding claim 1 has put claim 1 and its dependent claims in condition for allowance, and new claim 31, which is essentially the previous claim 9, rewritten in independent form, incorporates the allowable subject matter. However, claim 3 does not incorporate the allowable subject matter regarding the V-shaped bottom, and as noted in the grounds for rejection, the pillars disclosed by Agrawal et al. are inclined at an angle, that is, a 90 degree angle with the flat surface.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Y. Lam whose telephone number is 571-272-0822.

The examiner can normally be reached on Mon.-Fri. 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ann Y. Lam
Primary Patent Examiner
11/17/07